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**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**

**(of UNESCO)**

**Twenty-eighth Session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE-28)**

**12-14 March 2025**

**IODE Programme Activities: Progress Reports 2023-2024**

By Greg Reed

1. **Summary**

All existing Programme Activities must submit reports biennially prior to the IODE session, describing activities implemented, problems experienced and measures taken, results achieved and deliverables produced.

The following projects and activities are reported in this document.

[1. GTSPP Programme Activity Report 1](#_Toc183627203)

[2. International Quality controlled Ocean Database (IQuOD) Programme Activity Report 5](#_Toc183627204)

[3. Ocean Best Practices System (OBPS) Programme Activity Report 9](#_Toc183627205)

[4. IODE Quality Management Framework (QMF) Programme Activity Report 14](#_Toc183627206)

[5. Aquadocs Programme Activity Report 17](#_Toc183627207)

# GTSPP Programme Activity Report

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| --- | --- | --- | --- | --- | --- | --- |
| 1. **Title of IODE Programme Component/Programme ACTIVITY/Project AND ACRONYM** | | | | | | |
| Global Temperature and Salinity Profile Program (GTSPP) | | | | | | |
| 1. **established *(provide reference to IODE Committee session and Decision)*** | | | | | | |
| <https://legacy.iode.org/legacy.iode.org/index5ce8.html?option=com_content&view=article&id=310:iode-steering-group-for-gtspp&catid=10&Itemid=58> | | | | | | |
| 1. **REPORT SUBMITTED BY *(Name/Date)*** | | | | | | |
| Christopher R. Paver / 2024-11-22 | | | | | | |
| 1. **General overview/Executive summary** | | | | | | |
| The Global Temperature and Salinity Profile Programme’s (GTSPP) mission is to acquire, synthesize, and generate data products for near-real time and delayed mode (i.e. science quality) water temperature and salinity profiles.  The main sources of the data are the Global Telecommunications System (GTS) mostly for near real time data and directly from contributing SOT SOOP regional Data Assembly Centers (DACs) for delayed mode data.  US NOAA/NCEI continues to maintain the synthesized profile database, and generate operational Real Time and Best Copy data products.  Canada DFO continues to acquire data from the GTS and process for submission to US NOAA/NCEI.  The regional DACs (i.e. US NOAA/AOML, University of California San Diego - SCRIPPS, Australia CSIRO and Bureau of Meteorology) continue to submit delayed mode data to US NOAA/NCEI. The Japan Meteorological Agency (JMA) manages the GTSPP Data Product Centre for the North Pacific Ocean.  The products and services provided as part of GTSPP are used by many downstream data products and research initiatives, to include those as part of IODE and beyond to support climate studies, physical processes modeling, and refinement of quality control techniques. Without this program, the scientific community and operational systems would face severe setbacks, both in terms of resource demands and the loss of reliable, synthesized ocean profile datasets. This underscores the critical importance of sustaining GTSPP to support global ocean monitoring and research efforts.  Due to staffing and IT issues within some of the contributing organizations over the past couple of years, gaps in data acquisition and processing have become an issue.  For example, data being made available over the GTS in the relatively newer GTS file format BUFR, are not being acquired, save the near-real time Argo data.  Canada DFO is suffering from both staff shortages and IT issues that have precluded them from developing the software needed to regularly acquire data in the BUFR format.  There is currently no backup facility to acquire this data.  US NOAA/NCEI has reduced staffing in support of the program.  As a result, data submitted by the DACs are not being included into the synthesized database or in the resulting operational products, however they are being included into the World Ocean Database and subsequent products.  There are administrative challenges within the program that can occasionally delay the submission of data by some DACs, including France (IFREMER) and Japan (JODC). | | | | | | |
| 1. **Describe the status of workplan implementation and the results achieved** | | | | | | |
| **Outcomes** *(add more outcomes if needed)* | | | | | | |
| **Outcome N° 1.** Maintain system that acquires, synthesizes, and generates public products for real-time and delayed mode salinity and water temperature profile data. | | | | | | |
| **Performance indicators** *(list 2-5 indicators)* | | **Status** *(completed, in progress, cancelled)* | | | | |
| 1. Maintain timely and complete data and information of ocean temperature and salinity profile data. | | In progress | | | | |
| 1. Implement data flow monitoring system for improving the capture and timeliness of real-time and delayed-mode data. | | In progress | | | | |
| 1. Improve and implement agreed and uniform quality control and duplicate management systems. | | In progress | | | | |
| 1. Facilitate the development and provision of a wide variety of useful data analyses, data and information products, and data sets. | | In progress | | | | |
| **Deliverables** | |  | | | | |
| 1. Regularly generate Real Time and Best Copy products. | | In progress | | | | |
| 1. Reports on data acquisition and subsequent submission and inclusion into database (CMD). | | In progress | | | | |
| 1. Report on updated GTSPP quality control (QC) procedures. | | In progress | | | | |
| 1. GTSPP products have contributed to a number of data synthesis and research projects.    1. WOD Global and Regional Climatological Atlases (water temperature and salinity)    2. WOD Ocean Heat Content    3. WOD Thermo- and Halo-Steric Sea Level Time Series products    4. IAP Ocean Heat Content    5. IQuOD QC procedures for water temperature | | In progress | | | | |
| **Outcome N° 2** Continued GTSPP daily operations to process and load both real-time and non-real-time temperature and salinity data into the GTSPP Continuously Managed Database (CMD). | | | | | | |
| **Performance indicators** *(list 2-5 indicators)* | | **Status** *(completed, in progress, cancelled)* | | | | |
| 1. Acquire real-time and delayed mode data from the GTS. (Canada DFO) | | In progress | | | | |
| 1. Generate Science Quality data from applicable real time data. (Regional DACS) | | In progress | | | | |
| 1. Merge supplied real time and delayed mode data into CMD. (US NOAA/NCEI) | | In progress | | | | |
| **Deliverables** | |  | | | | |
| 1. Inclusion of all applicable (ocean profile) GTS BUFR as part of real time data feed. | | In progress | | | | |
| 1. Continued processing and submission from existing DACs and restarting the submission process for others such as IFREMER. | | In progress | | | | |
| 1. Timely inclusion of real time and delayed mode data into the GTSPP database and subsequent products. | | In progress | | | | |
| **List of partners and key stakeholders.** *(Indicate how partners and stakeholders contribute to the action)*   1. NOAA/NCEI – maintains the GTSPP database (CMD; acquiring and loading real time and delayed mode data), maintains the GTSPP Web Interface (GWI; query interface), and maintains the Real Time and Best Copy data products. 2. Canada DFO – acquires and processes real time data from the GTS and provides it to NOAA/NCEI. 3. Data Assembly Centers (AU BOM, AU CSIRO, CA DFO, FR IFREMER, US NOAA/AOML, US SCRIPPS) – Generates science quality versions of real time data via manual quality control (delayed mode) and submits the data to NOAA/NCEI. 4. Japan Meteorological Agency (JMA) – Generates and makes publicly available data quality products for the North Pacific XBT lines. | | | | | | |
| **Outcome N° 3.** Collaborate with partners and other programs to improve data pipelines, automated quality control procedures, and product access using FAIR principles. | | | | | | |
| **Performance indicators** *(list 2-5 indicators)* | | | **Status** *(completed, in progress, cancelled)* | | | |
| 1. Joint meeting with GTSPP/IQuOD/SOOPIP/XBT Science and potentially others. | | | In progress | | | |
| 1. Attend IODE meetings to report on GTSPP operational and development status. | | | In progress | | | |
| **Deliverables** | | |  | | | |
| 1. Report on potential development projects to improve GTSPPs mission to support stakeholders. | | | In progress | | | |
| 1. Status update on GTSPP activities. | | | In progress | | | |
| **Explain how the Programme Component/Programme Activity/Project is contributing to other IODE or IOC programmes and activities.**  The GTSPP Programme Activity, under ODIS, synthesizes, quality controls, and generates publicly available products for ocean profile temperature and salinity data. GTSPP supports cross organization collaboration as one of the OceanOps SOT/SOOP program repositories for XBT data. As part of IODE, GTSPP provides these curated products to other IODE programs such as the World Ocean Database (WOD) and the International Quality-controlled Ocean Database (IQuOD). | | | | | | |
| **Provide details on the long-term sustainability.** *(including confirmed extra budgetary resources)*  All GTSPP partners rely on in-kind funding from their respective organizations to support day-to-day activities in support of GTSPP initiatives. As partner organization budgets and priorities fluctuate, so do the resources allocated to support GTSPP. While this has not precluded GTSPP from fulfilling its deliverables, timeliness has been affected. | | | | | | |
| **Risks.** *(Describe the potential risk of not achieving the expected results)*  The Global Temperature and Salinity Profile Programme (GTSPP) is unique in its role as the only program, whether within the International Oceanographic Data and Information Exchange (IODE) framework or beyond, that provides synthesized, high-quality data products for ocean profile temperature and salinity. GTSPP bridges real-time data from the Global Telecommunications System (GTS) with delayed-mode, science-quality data, ensuring a comprehensive and reliable dataset for global users.  The following risks and consequences would arise if GTSPP were not able to fulfil their mission scope.  Each downstream product and research initiative relying on GTSPP would face significant challenges in obtaining integrated, high-quality temperature and salinity data. These initiatives would need to replicate the expertise, infrastructure, and workflows developed by GTSPP; a costly and time-consuming process.  GTSPP serves as a centralized hub for data collection, synthesis, and quality control. Without its services, individual institutions or programs would need to independently establish relationships with data providers, build and maintain data pipelines, and invest in infrastructure for end-to-end data management. This fragmentation would lead to inefficiencies, increased duplication of effort, and potential inconsistencies in data handling.  The high-quality, readily accessible datasets provided by GTSPP are vital for understanding ocean dynamics, climate change, and other critical phenomena. Without GTSPP, there would be a significant gap in the availability of accurate and synthesized ocean profile data, potentially slowing progress in key research areas and impacting operational forecasting systems.  GTSPP fosters collaboration among global partners, leveraging collective expertise to produce robust data products. Its absence could undermine international cooperation in ocean data management, leading to a more fragmented and less effective system. | | | | | | |
| 1. **Submission of workplan and budget for the next intersessional period** | | | | | | |
| **Workplan and budget for the next intersessional period.** *(show amount in USD)* | | | | | | |
|  | Budget request from IODE | | | | Confirmed EB funds | |
|  | 2025: | | | 2026: | 20xx: | 20xx: |
| Outcome 1. | 0 | | | 0 |  |  |
| Outcome 2. | 0 | | | 0 |  |  |
| Outcome 3. IODE-28; Joint IOC/IODE program meetings | $12,500 | | | $12,500 |  |  |
| **TOTAL** | $12,500 | | | $12,500 |  |  |
| 1. **DRAFT TEXT FOR THE ANNOTATED AGENDA AND SUMMARY REPORT** *(to be used for reporting to IODE session)* | | | | | | |
| The Global Temperature and Salinity Profile Programme’s (GTSPP) mission is to acquire, synthesize, and generate data products for near-real time and delayed mode (i.e. science quality) water temperature and salinity profiles.  The main sources of the data are the Global Telecommunications System (GTS) mostly for near real time data and directly from contributing SOT SOOP regional Data Assembly Centers (DACs) for delayed mode data.  US NOAA/NCEI maintains the synthesized profile database, and generates operational Real Time and Best Copy data products.  Canada DFO acquires data from the GTS and processes it for submission to US NOAA/NCEI.  The regional DACs (i.e. US NOAA/AOML, University of California San Diego - SCRIPPS, Australia CSIRO and Bureau of Meteorology) submit delayed mode data to US NOAA/NCEI. The Japan Meteorological Agency (JMA) manages the GTSPP Data Product Centre for the North Pacific Ocean.  The products and services provided as part of GTSPP are used by many downstream data products and research initiatives, to include those as part of IODE and beyond to support climate studies, physical processes modeling, and refinement of quality control techniques. Without this program, the scientific community and operational systems would face severe setbacks, both in terms of resource demands and the loss of reliable, synthesized ocean profile datasets. This underscores the critical importance of sustaining GTSPP to support global ocean monitoring and research efforts.  Although GTSPP continues to operate under reduced staffing in some partner organizations, the program continues to address gaps in data as it relates to end user products by developing pathways to GTSPP for real time and delayed mode data. The program is looking into parallel data streams for real time GTS data from GOOS, and reestablishing pipelines with the French Institute for Ocean Science (IFREMER) and Canadian Department of Fisheries and Oceans (DFO) to acquire delayed mode data. GTSPP will also start to develop a new pipeline for delayed mode expendable bathythermograph (XBT) data with the Italian National Institute of Geophysics and Volcanology (INGV). As GTSPP moves database and product management into the cloud in the coming years as part of the US NOAA/NCEI initiative to be 100% cloud based, the program will solicit stakeholders for potential development projects to enable more cloud native and FAIR compliant data products. As part of these activities, GTSPP requests funding to participate in joint meetings with other IOC programs and stakeholders to coordinate data management activities and product development. | | | | | | |

# International Quality controlled Ocean Database (IQuOD) Programme Activity Report

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| **1. TITLE OF IODE PROGRAMME COMPONENT/PROGRAMME ACTIVITY/PROJECT AND ACRONYM** | | | | | |
| International Quality controlled Ocean Database (IQuOD) | | | | | |
| **2. ESTABLISHED *(provide reference to IODE Committee session and Decision)*** | | | | | |
| The IODE-IQuOD project was established by IODE-XXIII (2015) through Recommendation IODE-XXIII.3 | | | | | |
| **3. REPORT SUBMITTED BY *(Name/Date)*** | | | | | |
| Lijing Cheng, Guilherme Castelao, Rebecca, Cowley | | | | | |
| **4. GENERAL OVERVIEW/EXECUTIVE SUMMARY** | | | | | |
| IQuOD, short for the International Quality-controlled Ocean Database, is dedicated to enhancing the quality, consistency, and comprehensiveness of the historical global subsurface ocean temperature profile record, primarily focusing on pre-1995 data. These historical ocean temperature profile observations play a crucial role in various ocean and climate research endeavours. They serve as vital inputs for seasonal-to-decadal prediction systems by providing initial conditions, contribute to the evaluation of past variations in sea level and Earth's energy imbalance, and support ocean state estimation for the study of variability and change, particularly in ocean heat content.  Additionally, these observations are invaluable for climate model evaluation and development. The IQuOD initiative is a collaborative effort within the community, striving to construct the most globally comprehensive temperature profile dataset. The IQuODv0.1 dataset includes extensive metadata and uncertainty information, aiming to propel advancements in the mentioned research areas. The group has also evaluated the most effective combination of automated quality control (AutoQC) procedures for temperature profile observations. With these developments, the group has freely disseminated an interim version of the IQuOD global temperature profile database through NOAA/NCEI. IQuOD has been very active with an online meeting every month and has established collaboration with OTGA. An in-person meeting has been organized on July 10-11 in Potsdam, Germany 2023, during which the main activities for 2023-2025 were discussed. In November 11-15 2024, an in-person joint meeting of IQuOD/SOOPIP/GTSPP/XBT Science was hosted in Bologna/Italy, with more than 50 participants.  IQuOD maintains a collection in the Ocean Best Practices Repository (https://repository.oceanbestpractices.org/handle/11329/1590) and version 0.1 of the IQuOD dataset is available to users from through the DOI https://doi.org/10.7289/v51r6nsf and on the NCEI THREDDS server https://[www.ncei.noaa.gov/data/oceans/iquod/.](http://www.ncei.noaa.gov/data/oceans/iquod/) IQuOD v0.1 updates were performed 4 times in 2021: May 1, June 12, Nov 29, and one further set is in the queue for archiving.  All IQuOD workshop reports are available through Aquadocs https://aquadocs.org/handle/1834/42829. | | | | | |
| **5. DESCRIBE THE STATUS OF WORKPLAN IMPLEMENTATION AND THE RESULTS ACHIEVED** | | | | | |
| **Outcomes** *(add more outcomes if needed)* | | | | | |
| **Outcome N° 1. IQuOD dataset improvements and development** | | | | | |
| **Performance indicators** *(list 2-5 indicators)*   1. Uncertainty definition/quantification update 2. Improve AutoQC open source code for speed. It was identified by partners as a limiting factor to the production of the next release of IQuOD 3. Update and expansion of manual QC web application | | **Status** *(completed, in progress, cancelled)*   1. *in progress* 2. *completed* 3. *in progress* | | | |
| **Deliverables**   1. IQuOD next release to be made available to the public through NOAA/NCEI (https://data.nodc.noaa.gov/cgi- bin/iso?id=gov.noaa.nodc:0170893**)** 2. Manual QC application available for use to apply scientific QC to the IQuOD product. 3. Duplicate checking code published via accepted FAIR method 4. Animal Pinniped CTD bias correction paper | | 1. *in progress* 2. *in progress* 3. *completed, duplicate checking code is available via* https://github.com/IQuOD/dupli cated\_checking\_IQuOD*.* A paper published in 2024: Song X, Tan Z, Locarnini R, Simoncelli S, Cowley R, Kizu S, Boyer T, Reseghetti F, Castelao G, Gouretski V and Cheng L (2024) DC\_OCEAN: an open-source algorithm for identification of duplicates in ocean databases. Front. Mar. Sci. 11:1403175. doi:   10.3389/fmars.2024.1403175.   1. *completed*, Gouretski, V., F. Roquet, and L. Cheng, 2024: Measurement Biases in Ocean Temperature Profiles from Marine Mammal Dataloggers. J. Atmos. Oceanic Technol., 41, 629–645,   https://doi.org/10.1175/JTECH- D-23-0081.1. | | | |
| **Outcome N° 2 IQuOD meetings and collaborations to enhance connections between IQuOD, associated groups, IODE and end users** | | | | | |
| **Performance indicators** *(list 2-5 indicators)*   1. Establish IQuOD steering group following the IQuOD organisation and strategic plan, 2023. 2. Engage with other IODE and non-IODE projects to enhance collaboration, capacity building, cross-program requirements and recognition of the IQuOD project. | | **Status** *(completed, in progress, cancelled)*   1. *completed,* steering group established during October/November 2024. 2. *in progress,* ongoing engagement has been established with OTGA and ODIS as well as with the reanalysis community, GTSPP, SOOPIP and XBT Science groups at the November 2024 meeting. | | | |
| **Deliverables**   1. Hybrid meeting for engaged groups hosted by INGV in Bologna, Italy, November 11-15. Funding from IODE to support some key IQuOD members to attend in person. 2. Regular monthly IQuOD online meetings. 3. Attend IODE meetings to report on IQuOD activities. Funding from IODE to support one IQuOD member to attend. | | *completed* | | | |
| **List of partners and key stakeholders.** *(Indicate how partners and stakeholders contribute to the action)*   1. Financial support for the publication fee of the duplicate check paper from Scientific Committee on Oceanic Research (SCOR) Working Group 148, funded by national SCOR committees and a grant to SCOR from the U.S. National Science Foundation. 2. Financial support for the human resources and computer feed from National Natural Science Foundation of China. 3. An European project BlueCloud provided support for venue and lunches the in-person meeting hosted in Bologna/Italy from November 11-15. 4. Many active IQuOD members receive in-kind support from their organisations for IQuOD-related work and attendance at the November meeting. | | | | | |
| **Explain how the Programme Component/Programme Activity/Project is contributing to other IODE or IOC programmes and activities.**  Ocean in-situ observational data, such as ocean temperature and salinity profiles, are essential for understanding changes in the ocean and climate. For this purpose, the international community of IQuOD play crucial roles in data integration, standardizing, formatting, duplicates removal, quality control and distribution of oceanographic data from various institutions around the world. The IQuOD actions improve the reliability of the oceanographic temperature and salinity profile data, and also improve the compatibility, comparability and accessibility of ocean data. Therefore, the IQuOD programme is directly relevant to IODE and IOC programmes and activities and will support multi-disciplines from ocean-related climate research, ocean and weather forecasting to marine ecosystem management. | | | | | |
| **Provide details on the long-term sustainability.** *(including confirmed extra budgetary resources)*   1. IQuOD group includes experts from more than 30 countries. As all members are working on oceanic temperature and salinity data, so there is great willingness for collaboration. This provides an important basis for long-term sustainability of the group. 2. IQuOD is collaborating with other IODE programmes (ODIS, OTGA and GTSPP) and non-IODE programmes (SOOPIP and XBT Science and the reanalysis community) to further enhance capacity building and engagement across networks. These collaborations and interactions build recognition and long-term sustainability. | | | | | |
| **Risks.** *(Describe the potential risk of not achieving the expected results)* | | | | | |
| IQuOD members contribute through support from their individual institutions. Each member might typically contribute 0.1FTE. However, this support is not guaranteed and has recently been under pressure due to factors such as the COVID pandemic which has put timescales for completing objectives at risk. | | | | | |
| **6. SUBMISSION OF WORKPLAN AND BUDGET FOR THE NEXT INTERSESSIONAL PERIOD** | | | | | |
| **Workplan and budget for the next intersessional period.** *(show amount in USD)* | | | | | |
|  | Budget request from IODE | | | Confirmed EB funds | |
|  | 2025: | | 2026: | 2025: | 2026: |
| **Outcome 1:** IQuOD dataset improvements and development.  *Activities:*   * Release of next version of IQuOD database that includes IQuOD automatic QC flags. * Improve IQuOD visibility through ODIS, connections to OTGA and collaborations with relevant data producers and end user groups. * Begin quality control and bias correction investigations for historical salinity data. * Begin building short courses in collaboration with OTGA. * Make improvements to the current uncertainty estimates for temperature and consider salinity uncertainties. * Investigate and develop dockerised versions of software already developed. * Work with other established groups towards coordination of data rescue methods. | 0 | | 0 |  |  |
| **Outcome 2:** Joint meeting with GTSPP/SOOPIP/XBT Science and potentially others. The meeting will further develop work and collaborations begun during the 2024 joint meeting. Funding to support travel costs for key IQuOD members. | $20,000 | | $20,000 |  |  |
| **Outcome 3:** IODE-28 and IODE-29; Joint IOC/IODE program meetings. IQuOD representative to attend. | $5,000 | | $5,000 |  |  |
| **TOTAL** | $25,000 | | $25,000 |  |  |
| **7. DRAFT TEXT FOR THE ANNOTATED AGENDA AND SUMMARY REPORT** *(to be used for reporting to IODE session)* | | | | | |
| IQuOD aims to produce, freely distribute and curate the highest quality, most complete and consistent global ocean subsurface temperature profile repository for Earth system, climate and ocean studies. IQuOD has published version 0.1 of the dataset which contains IQuOD uncertainty assignments for each individual measurement. The dataset is hosted through World Ocean Database. Recently, IQuOD developed a publicly available duplicate check algorithm and benchmark dataset to effectively identify duplicates in ocean databases (doi: 10.3389/fmars.2024.1403175), and a new bias correction algorithm for CTD data obtained from mammal mounted CTDs (https://doi.org/10.1175/JTECH- D-23-0081.1). Ongoing interactions and collaborations have been established between IQuOD, GTSPP, ODIS, XBT Science, reanalysis community members and the SOOPIP at a joint meeting hosted by INGV in Bologna, Italy in November, 2024. The outcomes of the meeting will be published in the IQuOD repository on Aquadocs. In the coming two years, IQuOD will continue to maintain collaborations with these groups and establish new collaborations.  IQuOD will release the next version of the database with Automatic Quality Control flags attached (as described in https://doi.org/10.3389/fmars.2022.1075510), and any improvements in uncertainty estimates, metadata and bias corrections. | | | | | |

# Ocean Best Practices System (OBPS) Programme Activity Report

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| **1. TITLE OF IODE PROGRAMME COMPONENT/PROGRAMME ACTIVITY/PROJECT AND ACRONYM** | | | | | |
| Ocean Best Practice System (OBPS) | | | | | |
| **2. ESTABLISHED *(provide reference to IODE Committee session and Decision)*** | | | | | |
| Decision IOC-XXX/7.2.1 (IOC Committee on International Oceanographic Data and Information Exchange) adopted at the 30th Session of the IOC Assembly (June/July 2019) | | | | | |
| **3. REPORT SUBMITTED BY *(Name/Date)*** | | | | | |
| Patricia Martin Cabrera (OBPS Project Manager)/22/11/2024 | | | | | |
| **4. GENERAL OVERVIEW/EXECUTIVE SUMMARY** | | | | | |
| The OBPS demonstrates its commitment to advancing the development, accessibility, interoperability, and global impact of best practices in ocean science and services through the following initiatives:   1. **Governance and Strategic Development:**    * Establishment of the OBPS Advisory Board (8 members, international leaders in various marine science fields relevant to OBPS) with its inaugural meeting held in October 2024, focusing on stakeholder engagement and strategic guidance for both current and future activities of OBPS    * Revision of the Terms of Reference to align OBPS activities with the broader IOC mandates and a federation model for enhanced IOC representation. 2. **Repository Evolution:**    * Growth in repository content, reaching 2,226 documents (increase of 185 documents since November 2023), with steady user engagement (86,720 users and 100,905 sessions recorded from July 2023 to November 2024).    * Technical upgrades underway, including a DSpace software upgrade and enhanced metadata filter search. These improvements are designed to streamline access and improve the discoverability of documents for users. 3. **Repository content:**    * Reviewing of repository content criteria focusing on methods and ensuring only relevant content is retained. A robust review process is being implemented to remove any materials that do not align with these updated criteria.    * Exploration of AI tools for improving discoverability, content validation and curation of the repository.    * Translation of endorsed practices into multiple languages, for broader accessibility and inclusivity for diverse global audiences. 4. **Community and Stakeholder Engagement:**    * Increased outreach through the Virtual OBPS VIII Annual workshop (October 2024), which attracted 700 participants across 72 sessions.    * Strengthened collaborations with Decade Collaborative Centers and endorsed projects (OceanPredict) through co-designed events, including joint sessions and a booth at the UN Decade Conference in Barcelona, 2024.    * Addition of new endorsed programmes in OceanPractices for the Decade program, further expanding its reach and impact.    * 18 new best practice articles published in OBPS’s special issue in Frontiers in Marine Science. 5. **Training and Capacity Development:**    * Launch of a self-paced OTGA training course (online, 4 hours), on how to create, submit, share and search for Best Practices, in November 2024.    * Initiation of partnerships with the World Maritime University (WMU-WMO) to integrate a best practices module into the university curricula on biodiversity monitoring and maritime operations. 6. **Metrics and Analytics:**  * Development of a public metrics dashboard to track repository content quality, usage and user engagement. * Plans for improved integration of metrics tools (e.g., Google Analytics, Altmetrics) for deeper insights into user behavior.  1. **Funding and Legal Structuring:**    * Formation of the AISBL legal entity Ocean Practices in 2024 to be able to secure long-term funding and administrative flexibility. 2. Participation in 4 external EU projects (e.g., Blue Cloud, ILIAD, Obsea4Clim, CINEA) to develop and implement best practices. | | | | | |
| **5. DESCRIBE THE STATUS OF WORKPLAN IMPLEMENTATION AND THE RESULTS ACHIEVED** | | | | | |
| **Outcomes** *(add more outcomes if needed)* | | | | | |
| **Outcome N° 1:** To secure the OBPS as a trusted system through which the ocean community persistently archives and converges their methods, standards, guides, and other methodological content into context-sensitive best practices. | | | | | |
| **Performance indicators** *(list 2-5 indicators)*   * Number of records in the repository: 2226 * Number of registered users depositing documents: 391 * Number of documents accessed (at least once) in 16-month period: 1812 * CAPARDUS Collection reviewed: 6 documents retained and 2 withdrawn. | | **Status** *(completed, in progress, cancelled)*  **In progress**: Operational online repository of OBPS with metadata collection, and enhanced filter search by different categories: endorsement , EOVs, and controlled vocabularies. | | | |
| **Deliverables**  [Repository content guidelines document](https://docs.google.com/document/d/1umUdBbrDMocoodBMx1pNcJ_Pt0HwQ5kgXUPRRWEm0oM/edit?tab=t.0) | |
| **Outcome N° 2:** To accelerate the endorsement and convergence of methodologies and conventions across ocean communities into trusted, adopted, and interoperable best practices and standards | | | | | |
| **Performance indicators** *(list 2-5 indicators)*   * Number of GOOS-endorsed practices in the repository: 11 * Number of GOOS-endorsed practices downloaded: >20K (sum of downloads for the 11 documents). | | **Status** *(completed, in progress, cancelled)* **In progress**: The OBPS endorsement process includes the development of a guidance document including a template for entities who would like to endorse their best practices, a promotional flyer for the community, an "endorsed" filter in the repository, and a maturity model to support the process of elevating a practice to a best practice | | | |
| **Deliverables**  **-** Bushnell, Mark and Pearlman, Jay (eds) (2024) Ocean Best Practices System Endorsement: Guidance for the Ocean Community, Version 2024-03-20. Ocean Best Practices System, 8pp. DOI: <https://doi.org/10.25607/OBP-1983> | |
| **Outcome N° 3:** To foster community-led and equitable capacity development in ocean best practices | | | | | |
| **Performance indicators** *(list 2-5 indicators)*   * Updates and development of new training courses in Ocean Best Practices on OTGA (ConCENSUS and Blue Cloud 2026) * Number of OBPS VIII Annual virtual workshop participants: 25 sessions and 800 participants from 100 countries * Training program designed and expert advisory team formed for the OBPS’s ADAPT project * University curriculum in operational biodiversity monitoring with the World Maritime University (WMU-WMO) | | **Status** *(completed, in progress, cancelled)*  **In progress**: ADAPT Project delayed; University curriculum, courses in CoNCENSUS and BlueCloud2026 projects under development.  **Completed:** OTGA BP courses and OBPS annual workshop completed | | | |
| **Deliverables**   * Ocean Best Practices Self Paced online course in OTGA * OBPS VIII Annual Virtual Workshop Proceedings Report | |
| **List of partners and key stakeholders.** *(Indicate how partners and stakeholders contribute to the action)*   * **IOC-OBPS Parent Programmes:** GOOS and IODE. * **Steering Group** (<https://oceanexpert.org/group/448>): Composed by 24 members with a wide range of backgrounds, geographical scope, and institutions types. The Steering Group participates in monthly meetings including the SG Annual meeting to advance the work plan and strategy development of OBPS. | | | | | |
| Most of the members are very active and contribute to at least one of the seven work packages. Additional responsibilities include: collaborative work on task teams, reviewing materials such as internal guidelines documents, and representing OBPS in external events.   * **Advisory Board** (<https://oceanexpert.org/group/552>): Composed by eight members well represented geographically and with senior profiles in different fields in ocean science and policy. Their primary objective is to provide strategic advice to advance best practices in ocean science and applications. * **Ocean Practices Ambassadors (**<https://oceanexpert.org/group/504>): The early career Ocean Practices Ambassadors are representing diverse voices, and actively promoting the access and implementation of ocean best practices in the field, thereby raising awareness, building trust, and shaping ocean best practices across the entire ocean value chain. * **OBPS Task Teams**: Task Teams of specific duration support specific needs related to the Work Package objectives. OBPS currently has five Task Teams: Decision Trees; Omics/eDNA Protocol Management; Coastal Observations in Under Resourced countries; OBPS Diversity, Equity and Inclusion; Statement and Value Chain Analysis and KPI Development * **External Projects collaborations:**   + **Blue Cloud 2026:** OTGA courses and webinars (via the Training Academy) in Best Practices in data management and sharing.   + **ILIAD**: Creation and adoption of best practices and standards.   + **Obsea4Clim**: Dissemination material on Capacity building and sharing of best practices.   + **CINEA**: A comprehensive and user-friendly information system. | | | | | |
| **Explain how the Programme Component/Programme Activity/Project is contributing to other IODE or IOC programmes and activities.**  The OBPS has advanced its technology by adopting metadata aligned with the FAIR Principles (Findable, Accessible, Interoperable, and Re-Usable). It enhances findability through integration with the IODE’s Ocean Data and Information System (ODIS) (<https://oceaninfohub.org/odis/>), its parent Programme Component. Through its collaboration with ODIS, the OBPS is evolving into a central hub for sharing methodologies and serving as the core of the Ocean Practices Federated Network (OPFN), enabling interconnected methods collections across partner systems to benefit the global community. OBPS also extends its impact across other Programme Components, such as collaborating with OTGA to enhance course visibility (outcome N° 3). | | | | | |
| **Provide details on the long-term sustainability.** *(including confirmed extra budgetary resources)*   * Reviewing of the Terms of References of the IOC OBPS to further expand the involvement and cooperation in the development of best practices by all IOC programmes and regional sub-commissions * The rationale of establishing the AISBL legal entity Ocean Practices (OP) is to secure long-term funding for OBPS, to support its expansion via grants, sponsorships, donations, and membership fees, and to allow for flexibility on administration issues (i.e.. hiring, travel, etc.). * OBPS (through IEEE) is involved in a number of external EU projects, where the budget is mainly covering personnel costs. The aim of the tasks in these projects is to create best practices. The AISBL, will be replacing the involvement of IEEE as engaged organizations. The following EU projects and their corresponding budgets include:   + Blue Cloud 2026 [2023-2026]: 63,9K euros/personnel, and 15K euros/OTGA: Training Academy   - ILIAD[2022-2025]: 70K euros   * + Obsea4Clim [2024-2028]: 60K euros   - CINEA [2024-2025]: 68K euros | | | | | |
| **Risks.** *(Describe the potential risk of not achieving the expected results)*   * High cost of adapting repository technology (DSpace) * Lack of external budgetary funding for the development of OBPS Core System * In kind or volunteering human resources, limits the time investment * Missing technical profiles in Steering Group | | | | | |
| **6. SUBMISSION OF WORKPLAN AND BUDGET FOR THE NEXT INTERSESSIONAL PERIOD**  **Outcome N° 1:** To secure the OBPS as a trusted system through which the ocean community persistently archives and converges their methods, standards, guides, and other methodological content into context-sensitive best practices. | | | | | |
| * **Activity 1.1** Secure a CORE Trust Seal Repository Certification (IODE Budget) * **Activity 1.2** Maintenance of AWS subscription (IODE Budget) * **Activity 1.3** User Experience (UX) improvement (EB funds) * **Activity 1.4** Development OBPS Core system (EB funds) * **Activity 1.5** Ocean Practices Federated Network **(**OPFN) development (EB funds)   **Outcome N° 2:** To foster community-led and equitable capacity development in ocean best practices   * **Activity 2.1** Annual OBPS Workshop (IODE Budget) * **Activity 2.2** Promotional material video and flyers (IODE Budget) * **Activity 2.3** Ocean Best Practices training courses (EB funds) * **Activity 2.4** Training resources provided by OTGA and other training providers available through the OBPS repository (EB funds: ADAPT) * **Activity 2.5** Guidelines for Open Access Catalogue (EB: Blue Cloud 2026)   The budget presented below is further expanded in Annex I in this document, splitting the year 2025 in two semesters, to allow the total budget for the second semester to be split among additional IOC Programmes potentially joining OBPS. Priority in 2025 to mobilize external budgetary funds for the development of the core system | | | | | |
| **Workplan and budget for the next intersessional period.** *(show amount in USD)* | | | | | |
|  | Budget request from IODE | | | Confirmed EB funds | |
|  | 2025: | | 2026: | 2025: | 2026: |
| Project Manager | 12690 | | 23265 |  |  |
| Travel IOC Meetings | 4500 | | 5000 |  |  |
| Annual OBPS Workshop | 5000 | | 5000 |  |  |
| SG-OBPS-Annual Meeting | 12500 | | 13000 |  |  |
| Promotional Material (video and flyers) | 2500 | | 2500 |  |  |
| Repository Certification (CTS 3 year sub) | 2000 | | 0 |  |  |
| AWS subscription | 4500 | | 5000 |  |  |
| Total | 43690 | | 53765 |  |  |
| **7. DRAFT TEXT FOR THE ANNOTATED AGENDA AND SUMMARY REPORT** *(to be used for reporting to IODE session)* | | | | | |
| **Cristian Muñoz Mas** (OBPS Co-Chair) reported that OBPS (IODE/GOOS Ocean Best Practices System) recently convened its sixth annual Steering Group meeting (SG-OBPS-VI), in Paris, France, from November 12–14, 2024. The meeting provided an opportunity to assess the progress of work packages, evaluate the implementation of the 2024 work plan, and discuss future developments for the OBPS repository. The meeting emphasized several technical priorities, including upgrading the DSpace software and reconfiguring analytics, to ensure the system remains operational and effective. Efforts to evaluate repository content were also a major focus. These included the implementation of a robust review process to ensure only relevant content is retained. A robust review process is being implemented to remove any materials that do not align with these updated criteria. The role of endorsing entities in managing best practices was also extensively discussed, and the need for a rigorous endorsing review process. This year, an Advisory Board was established, whose recommendations were reviewed and discussed. They emphasized the importance of stakeholder engagement with regional and funding organizations, and the need for trust-building mechanisms to strengthen OBPS.  A comprehensive roadmap and implementation plan were identified as top priorities, supported by the adoption of a biennial review cycle for strategic alignment. One of the most notable strategic discussions centered on expanding OBPS’s role within IOC mandates to maximize impact across the ocean value chain. The group proposed adopting a "federation model," which would integrate IOC Programmes and Regional Sub-Commissions. This model aims to enhance global representation, establish a structured governance framework across IOC. The session concluded with plans to finalize terms of reference and steering group membership. | | | | | |

Annex I: Budget requested from IODE (splitted in two semesters)

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestones** | **January- June 2025** | **July-December 2025** | **Total Budget 2025** |
| Project Manager | 4230 | 8460 | 12690 |
| Travel IOC Meetings | 2250 | 2250 | 4500 |
| OBPS Annual Workshop | 0 | 5000 | 5000 |
| SG-OBPS Annual Meeting | 0 | 12500 | 12500 |
| Promotional Material (video and  flyers) | 1250 | 1250 | 2500 |
| Repository Certification (CTS 3 year sub) | 0 | 2000 | 2000 |
| AWS subscription | 2250 | 2250 | 4500 |
| **TOTAL** | **9980** | **33710** | **43690** |

# IODE Quality Management Framework (QMF) Programme Activity Report

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. **Title of IODE Programme ACTIVITY AND ACRONYM** | | | | | |
| IODE QUALITY MANAGEMENT FRAMEWORK (QMF) | | | | | |
| 1. **established *(provide reference to IODE Committee session and Decision)*** | | | | | |
| Recommendation IODE-XXII.18 | | | | | |
| 1. **REPORT SUBMITTED BY *(Name/Date)*** | | | | | |
| Greg Reed, 1 November 2024 | | | | | |
| 1. **General overview/Executive summary** | | | | | |
| The main objectives of the IODE-QMF Programme Activity are to (i) provide the overall strategy, advice and guidance to NODCs /ADUs to establish organizational quality management systems for the delivery of oceanographic and related data, products and services, (ii) initiate and review existing standards and Manuals and Guides with respect to the inclusion of quality management procedures and practices, and (iii) apply the necessary capacity development activities to ensure accreditation of NODCs/ADUs according to agreed criteria in order to bring all NODCs/ADUs to a minimum agreed level  During the intersessional period,   * Two applications seeking accreditation as an NODC were received. These were from the Italian National Oceanographic Data Centre (hosted at the National Institute of Oceanography and Applied Geophysics - OGS) and the Australian Ocean Data Network (AODN). These applications were reviewed by the SG-QMF and recommended the NODCs be awarded the status of Accredited IODE National Oceanographic Data Centre. * One application was received from the Ocean Tracking Network (OTN) seeking accreditation as an ADU. This was reviewed by the SG-QMF which recommended OTN be awarded the status of Accredited IODE Associate Data Unit. * One application was received from the British Oceanographic Data Centre (BODC) seeking re-accreditation as an NODC. This was reviewed by the SG-QMF which recommended the BODC retaining accredited NODC status.   The IODE/OTGA Quality Management System Essentials for NODCs and ADUs training course was delivered onsite from 16-18 January 2024 and 16 participants representing 11 NODCs and ADUs successfully completed the course. Trainers from UK, Norway, Ireland and Australia provided instruction for the course.  The Steering Group reviewed and revised the IODE Quality Management Framework for National Oceanographic Data Centres and Associate Data Units (IOC Manuals and Guides 67) and the revised edition was published October 2023. | | | | | |
| 1. **Describe the status of workplan implementation and the results achieved** | | | | | |
| **Outcomes** *(add more outcomes if needed)* | | | | | |
| **Outcome N° 1.** Provide the overall strategy, advice and guidance to NODCs to establish organizational quality management systems for the delivery of oceanographic and related data, products and services | | | | | |
| **Performance indicators** *(list 2-5 indicators)*  PI 1.1. Review applications for accreditation/re-accreditation submitted by NODCs and ADUs.  PI 1.2. Provide advice and support for NODCs/ADUs seeking accreditation. | | **Status** *(completed, in progress, cancelled)*  Ongoing. 3 applications for NODC accreditation, 1 application for ADU accreditation, 1 application for NODC re-accreditation recommended  Ongoing. Specific requests for support from Madagascar and Panama provided | | | |
| **Deliverables**  SG-QMF reviewed all applications for accreditation. Recommended that 3 NODCs Accredited, 1 ADU accredited and 1 NODC re-accredited NODC . | |  | | | |
| **Outcome N° 2.** Initiate and review existing standards and Manuals and Guides with respect to the inclusion of quality management procedures and practices. | | | | | |
| **Performance indicators** *(list 2-5 indicators)*  PI 2.1. Review and revise IOC Manuals and Guides 67.  PI 2.2. Review IODE Accreditation Requirements. | | **Status** *(completed, in progress, cancelled)*  Completed. M&G published.  Ongoing. Recommendation to IODE committee to revise accreditation requirement for CTS certified data centres | | | |
| **Deliverables**  IOC Manuals and Guides 67 "IODE Quality Management Framework for National Oceanographic Data Centres and Associate Data Units" revised and published October 2023. | |  | | | |
| **List of partners and key stakeholders.** *(Indicate how partners and stakeholders contribute to the action)*  All IODE NODCs and ADUs contribute the QMF and should be able to demonstrate their capabilities to provide data and services in compliance with established standards and responsibilities that will lead to accreditation. NODCs and ADUs are encouraged to apply for accreditation and meet the prescribed accreditation requirements. | | | | | |
| **Explain how the Programme Component/Programme Activity/Project is contributing to other IODE or IOC programmes and activities.**  NODCs and ADUs must be able to demonstrate their capability to provide data and services in compliance with established functions and responsibilities and to support the data access requirements of all IOC programme areas as well as to the wider community. The adherence to agreed standards and the requirements of the IOC Data Policy and Terms of Use (2023) must be met and sustained. Accreditation of data centres, based on relevant criteria that can be translated into quantitative indicators, will ensure the data centres are able to provide quality data to meet the requirements of a broad community of users. | | | | | |
| **Provide details on the long-term sustainability.** *(including confirmed extra budgetary resources)*  No funding requested. The Programme Activity depends in-kind support from Steering Group members. | | | | | |
| **Risks.** *(Describe the potential risk of not achieving the expected results)*  Slow uptake of the Quality Management Framework from the IODE community and NODCs / ADUs do not submit applications for accreditation. Result will be less accredited centres and | | | | | |
| 1. **Submission of workplan and budget for the next intersessional period** | | | | | |
| **Workplan and budget for the next intersessional period.** *(show amount in USD)* | | | | | |
|  | Budget request from IODE | | | Confirmed EB funds | |
|  | 2025: | | 2026: | 2025: | 2026: |
| Outcome 1. | 0 | | 0 | 0 | 0 |
| Outcome 2. | 0 | | 0 | 0 | 0 |
| **TOTAL** | 0 | | 0 | 0 | 0 |
| 1. **DRAFT TEXT FOR THE ANNOTATED AGENDA AND SUMMARY REPORT** *(to be used for reporting to IODE session)* | | | | | |
| The main objectives of the IODE-QMF Programme Activity are to (i) provide the overall strategy, advice and guidance to NODCs /ADUs to establish organizational quality management systems for the delivery of oceanographic and related data, products and services, (ii) initiate and review existing standards and Manuals and Guides with respect to the inclusion of quality management procedures and practices, and (iii) apply the necessary capacity development activities to ensure accreditation of NODCs/ADUs according to agreed criteria in order to bring all NODCs/ADUs to a minimum agreed level  During the intersessional period,   * Three applications seeking accreditation as an NODC were received. These were from the Norwegian Marine Data Centre (NMD), the Italian National Oceanographic Data Centre (hosted at the National Institute of Oceanography and Applied Geophysics - OGS) and the Australian Ocean Data Network (AODN). All applications were reviewed by the SG-QMF which recommended the NODCs be awarded the status of Accredited IODE National Oceanographic Data Centre. * One application was received from the Ocean Tracking Network (OTN) seeking accreditation as an ADU. This was reviewed by the SG-QMF which recommended OTN be awarded the status of Accredited IODE Associate Data Unit. * One application was received from the British Oceanographic Data Centre (BODC) seeking re-accreditation as an NODC. This was reviewed by the SG-QMF which recommended the BODC retaining accredited NODC status.   The IODE/OTGA Quality Management System Essentials for NODCs and ADUs training course was delivered onsite from 16-18 January 2024 and 16 participants representing 11 NODCs and ADUs successfully completed the course. Trainers from UK, Norway, Ireland and Australia provided instruction for the course.  There is a need for Quality Management training delivered in Spanish and requests for training have been received. Any Accredited NODC or ADU that would like to contribute to a QMF training course in Spanish should contact the IODE Training Coordinator, Ms Ana Carolina Mazzuco.  The Steering Group reviewed and revised the IODE Quality Management Framework for National Oceanographic Data Centres and Associate Data Units (IOC Manuals and Guides 67) and the revised edition was published October 2023.  IODE-XXVII approved changes to the IODE accreditation process to include certification by CTS as meeting the requirements for IODE accreditation. Any NODC or ADU which has been certified by CTS will be awarded the status of Accredited IODE National Oceanographic Data Centre or Accredited IODE Associate Data Unit provided they can show evidence of (i) providing national reports to the IODE Committee and (ii) adherence to IODE Standards and Best Practice. The SG-QMF has reviewed these requirements and recommends an additional requirement for CTS certified data centres to be included (iii) adherence to the IOC Data Policy and Terms of Use (2023).  Mr Reed advised the Committee that he is stepping down from the Steering Group. | | | | | |

# Aquadocs Programme Activity Report

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1. TITLE OF IODE PROGRAMME COMPONENT/PROGRAMME ACTIVITY/PROJECT AND ACRONYM** | | | | | | |
| **AquaDocs repository** | | | | | | |
| **2. ESTABLISHED *(provide reference to IODE Committee session and Decision)*** | | | | | | |
| IODE-XXVI. 2021. Decision IODE-XXVI.8.2: ESTABLISHMENT OF THE AQUADOCS PROJECT | | | | | | |
| **3. REPORT SUBMITTED BY *(Name/Date)*** | | | | | | |
| Sally Taylor and Ekaterina Kulakova, AquaDocs Project Managers  Submitted November 26, 2024 (covers time period April 2023 to December 2024) | | | | | | |
| **4. GENERAL OVERVIEW/EXECUTIVE SUMMARY** | | | | | | |
| AquaDocs is the joint open access repository of the [UNESCO/IOC InternationaI Oceanographic Data and Information](https://iode.org/)  [Exchange (IODE)](https://iode.org/) and the [International Association of Aquatic and Marine Science Libraries and Information Centers](https://iamslic.wildapricot.org/) [(IAMSLIC)](https://iamslic.wildapricot.org/) with support from the [FAO Aquatic Sciences and Fisheries Abstracts (ASFA)](http://www.fao.org/fishery/asfa/en). AquaDocs has almost 37,000 publications covering the natural marine, coastal, estuarine/brackish and freshwater environments, and was created by merging content from two repositories (OceanDocs and Aquatic Commons). AquaDocs serves as a repository for more than 130 organizations and projects to make aquatic and marine science information Findable, Accessible, Interoperable, Reusable (FAIR).  Since its launch on August 17, 2021, the repository has grown by 1700+ publications and added 14 new communities. Of significance to IOC and IODE were the completion of the ASFA Trust Fund project to deposit 200 items of IOC historic grey literature, and the selection of AquaDocs as the repository for the *UN Decade of Ocean Science for Sustainability - 10 Challenges*.  The focus in 2024 for the project managers and others on the Steering Group was to migrate AquaDocs to a new hosting platform with DSquare Technologies. The first phase of the migration is expected to be completed by January 2025. | | | | | | |
| **5. DESCRIBE THE STATUS OF WORKPLAN IMPLEMENTATION AND THE RESULTS ACHIEVED** | | | | | | |
| **Outcomes** *(add more outcomes if needed)* | | | | | | |
| **Outcome N° 1.** Make aquatic and marine science information FAIR (Findable, Accessible, Interoperable, Re-usable) for all  **Outcome N° 2** Make grey literature more easily and equitably available | | | | | | |
| **Performance indicators** *(list 2-5 indicators)*  1. Increase in number of records available Open Access to all | | | **Status** *(completed, in progress, cancelled)*  36,983 records as of November 26, 2024. approx. 700 records added since April 2023. | | | |
| 2. Increase in AquaDocs Communities and Collections | | | New communities and significant collections added since April 2023.   * Bicol University * Biological and Chemical Oceanography Data Management Office (BCO-DMO) * European Marine Board * International Quality-controlled Ocean Database (IQuOD) * NIWA: New Zealand Institute of Water and Atmospheric Research * Universitas Malikussaleh, Department of Marine Science, Journal of Marine Studies * University of Panamá (significant restructuring) * UN Decade of Ocean Science for Sustainability -- 10 Challenges | | | |
| 3. Engagement activities to promote AquaDocs | | | Presentations and other promotional activities.   * EURASLIC Conference (April 2023) * Write-up for Underwater Cultural Heritage community (May 2023) * IAMSLIC Conference (October 2023) * University of Panama Meeting (March 2024) * IAMSLIC Conference (October 2024) | | | |
| Deliverables  Deposit of 200 IOC Historic Records (ASFA Trust Fund project) | | | completed | | | |
| OpenASFA implemented regular harvesting of metadata from AquaDocs, and some harvested records were edited, approved, and made available on the FAO and ProQuest sites. | | | completed but will need to be set up again with new AquaDocs platform | | | |
| **Outcome N° 3** Offer a repository platform to organizations and individuals without the infrastructure to support their own | | | | | | |
| **Performance indicators** *(list 2-5 indicators)*  1. Financial support for external hosting | | **Status** *(completed, in progress, cancelled)*  completed for 2024/25 | | | | |
| 2. Successful migration to a new platform | | in progress | | | | |
| 3. Exploration of merger with OpenASFA | | in progress | | | | |
| **Deliverables**  *Funding for 2023/24:* Renewed contract with DSpace-certified vendor Atmire with costs shared equally between IAMSLIC and IODE. Due to a shortfall in the IODE budget, IAMSLIC and three regional groups contributed one-time funding.  *Funding for 2024/25:* Funding from IODE secured for new hosting platform with DSquare Technologies. Annual cost is more in line with budget levels to ensure long-term sustainability of AquaDocs. | | completed | | | | |
| Repository migration to DSquare Technologies, including RFP process, evaluation of proposals, migration of data, customization of repository, and user testing. | | in progress (estimated launch January 2025) | | | | |
| OpenASFA potential merger - SWOT analysis from perspectives of AquaDocs and OpenASFA. A merger would be a significant change as there are benefits to integration and potential drawbacks. | | SWOT analysis completed.  Discussion ongoing. | | | | |
| **Outcome N° 4** Offer repository training and support | | | | | | |
| **Performance indicators** *(list 2-5 indicators)*  1. Number of training sessions | | **Status** *(completed, in progress, cancelled)*  Six training sessions were delivered:   * APIRG (June 2023) * TINRO (Oct 18 and 31 2023) * INIDEP (Oct 30 2023) * AzNIIRKH, Russia (Nov 16 2023) * BIOR, Latvia (Nov 17 2023) * University of Panama (May 29 2024) | | | | |
| 2. Number of individuals onboarded/assisted via email | | AquaDocs responded to approx. 60 email queries regarding deposits and approx. 20 about accessing publications. | | | | |
| **Deliverables**  User guides for new Knowledge Hub platform for Depositors, Editors, Collection administrators, and Searching | | in progress | | | | |
| **List of partners and key stakeholders.** *(Indicate how partners and stakeholders contribute to the action)*  IODE Project Office - provides financial, administrative and technical support (including domain renewal, email domain administration)  IAMSLIC - provides in-kind support for project management, repository operations, training and promotion, editorial curation (estimated at 300 hours this year due to migration)  ASFA - provides expertise and opportunities to collaborate on training, and harvests records from AquaDocs to OpenASFA to increase visibility of publications in AquaDocs | | | | | | |
| **Explain how the Programme Component/Programme Activity/Project is contributing to other IODE or IOC programmes and activities.**  AquaDocs contributes to the Programme Component Ocean Data and Information System (ODIS) which “provides an interoperability layer and supporting technology to allow existing and emerging ocean data and information systems, from any stakeholder, to interoperate with one another”.  ODIS harvests metadata from AquaDocs, and through the Ocean InfoHub (OIH) search interface, provides access to almost 40,000 publications related to the marine, coastal, estuarine /brackish and freshwater environments. This increases the value of OIH as a search tool and provides additional visibility for AquaDocs and oceanographic literature.  In addition, AquaDocs supports other IODE Programme Activities and Projects, including the UN Ocean Decade by serving as a repository for project publications and documentation. | | | | | | |
| **Provide details on long-term sustainability.** *(including confirmed extra budgetary resources)*  The long-term sustainability of AquaDocs requires stable funding from IODE and in-kind support from the IAMSLIC community.  IODE costs this year were reduced by more than 50% by migrating to a less expensive hosting vendor. We hope this will result in operational stability for the next several years.  IAMSLIC continues to offer in-kind support for project management, repository operations and editorial curation. This year with the migration to a new platform, we estimate approx. 300 hours of volunteer time. This amount of time is not sustainable on an annual basis and prevents project managers and others from focusing their energy on growing the repository through content recruitment, promotion, and training. | | | | | | |
| **Risks. (Describe the potential risk of not achieving the expected results)**  AquaDocs is at risk if there is not adequate stable funding and continued in-kind support from IAMSLIC members.  The loss of AquaDocs would have an impact on 100+ organizations who rely on AquaDocs as their ‘institutional’ repository. It would also affect researchers around the world who would no longer have access to publications, including hard-to-find grey literature. We experienced a small taste of this with AquaDocs being unavailable since mid-October due to the migration; we fielded several requests from researchers looking for specific publications or information on specific topics. | | | | | | |
| **6. SUBMISSION OF WORKPLAN AND BUDGET FOR THE NEXT INTERSESSIONAL PERIOD** | | | | | | |
| **Workplan and budget for the next intersessional period. (show amount in USD)** | | | | | | |
|  | Budget request from IODE | | | | Confirmed EB funds | |
|  | 2025: | | | 2026: | 2025: | 2026: |
| **Outcome N° 1. Robust hosting platform with improved statistics module, ontologies, and multilingual interfaces.**  Complete initial migration to DSquare Technologies’ hosting platform Knowledge Hub and launch in January 2025.  Further development of platform: improved statistics module, addition of subject and geographic ontologies, and multilingual interfaces.  ***Note: Annual hosting cost in 2024 = 6990 USD + 21% VAT. Budget request allows for a 5% annual increase.*** | 9000 USD  2000 USD  for travel to IODE 28 | | | 9500K  3000 USD  for travel to IODE MG | in kind | in kind |
| **Outcome N° 2. AquaDocs training and promotion**  Assist new and existing communities to onboard to the new hosted repository platform.  Update user guides for depositors, editors, collections administrators and searchers for the new platform.  Offer training sessions for depositors and editors on the new hosted platform. | 0 | | | 0 | in kind | in kind |
| **Outcome N° 3. OpenASFA merger**  Continue discussions with ASFA colleagues about ongoing collaboration and a potential merger with OpenASFA.  ***Note:*** *Should a decision be made to merge AquaDocs and OpenASFA, we would request permission to re-allocate funding to support this new information resource with IODE as a partner in the development.* | 0 | | | 0 | in kind | in kind |
| **TOTAL** | 11,000 USD | | | 12,500 USD |  |  |
| **7. DRAFT TEXT FOR THE ANNOTATED AGENDA AND SUMMARY REPORT** *(to be used for reporting to IODE session)* | | | | | | |
| AquaDocs is the joint open access repository of the UNESCO/IOC InternationaI Oceanographic Data and Information Exchange (IODE) and the International Association of Aquatic and Marine Science Libraries and Information Centers (IAMSLIC) with support from the FAO Aquatic Sciences and Fisheries Abstracts (ASFA). AquaDocs has almost 37,000 publications covering the natural marine, coastal, estuarine/brackish and freshwater environments, and was created by merging content from two repositories (OceanDocs and Aquatic Commons). AquaDocs serves as a repository for more than 130 organizations and projects to make aquatic and marine science information Findable, Accessible, Interoperable, Reusable (FAIR). Since its launch on August 17, 2021, the repository has grown by more than 1700 publications and added 14 new communities. Of significance to IOC and IODE were the completion of the ASFA Trust Fund project to deposit 200 items of IOC historic grey literature, and the selection of AquaDocs as the repository for the *UN Decade of Ocean Science for Sustainability - 10 Challenges*.  The focus in 2024 for the project managers and others on the Steering Group was to migrate AquaDocs to a new hosting platform with DSquare Technologies resulting in significant cost savings for IODE. The first phase of the migration is expected to be completed by January 2025.  The AquaDocs Steering Group seeks IODE funding for (9000 USD in 2025 and 9500 USD in 2026) for hosting costs and travel to IODE meetings (2000 USD in 2025 and 3000 USD in 2026).  Benefits of partnership   * IAMSLIC members manage the AquaDocs project. Experienced information professionals volunteer hundreds of hours of their time to manage the project, operate the repository, onboard new depositors, provide training and promotion, curate records, and contribute content. * IODE funds the hosting of the repository with an external DSpace-certified vendor. External hosting offers a robust, streamlined interface with *dedicated* technical support. In addition, the IODE Project Office offers technical advice to the AquaDocs Steering Group, and administrative support for contract renewal. * ASFA supports AquaDocs in two keyways to increase the visibility of aquatic publications: 1) by harvesting records from AquaDocs to include in the OpenASFA search interface; 2) by supporting organizations to digitize grey literature and deposit into AquaDocs.   Benefits to IODE   * AquaDocs serves as a repository platform for IOC and IODE publications, providing access to documents such as marine and aquatic documents, national and project reports, meeting reports, etc. AquaDocs offers persistent identifiers called Handles (similar to DOIs) which simplifies citing and linking to documents and ensures access if the IODE website or OceanExpert are re-developed. * AquaDocs serves as a repository for other oceanographic projects and organizations. Examples include the Partnership for Observation of the Global Ocean (POGO) and Scientific Committee on Oceanic Research (SCOR). In addition, other emerging IOC programmes/products (e.g. Harmful Algal Information System) could link to specific documents already available in AquaDocs. * AquaDocs is part of the ODIS/OIH ecosystem which increases discoverability of IOC and global marine and aquatic documents.   Benefits to external hosting   * IT support needed from IODE project office is minimal * Full solution with additional features not available in standard DSpace installation (e.g. user export of results, harvesting, statistics module, content management tools with WYSIWYG editors for static pages and FAQs) * Support guaranteed within an agreed time * No network security risks * Consistent maintenance * Contract can be terminated and content exported back to the self-hosting model | | | | | | |

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